

## IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): ~~An improved non-tacky crystal gels~~ gel composition comprising:

(I) 100 parts by weight of

(i) one or more poly(ethylene-styrene) interpolymers} having one or more glassy components and at least one substantially crystalline components, wherein said (i) copolymers being in combination with a selected amount of one or more selected second copolymers comprising:

(ii) one or more substantially random copolymers having one or more glassy components and one or more crystalline components of moderate crystallinity;

(iii) one or more substantially random copolymers having one or more glassy components and one or more crystalline components of negligible polyethylene crystallinity or low polyethylene crystallinity;

(iv) one or more substantially random copolymers having one or more glassy components and one or more amorphous components;

(v) one or more of a diblock, triblock, multi-arm block, branched block, radial block, or multiblock copolymers, wherein said (v) copolymers having one or more glassy components and one or more elastomeric components of selected crystallinity; and

(vi) one or more of a diblock, triblock, multi-arm block, branched block, radial block, or multiblock copolymers, wherein said (vi) copolymers having one or more glassy components and one or more amorphous elastomeric components;

(vii) a mixture of two or more (ii)-(vi) copolymers;

wherein said (i)-(iii) and (v) copolymers are characterized by one or more polyethylene components of negligible crystallinity, low crystallinity, moderate crystallinity, or of sufficient crystallinity as to exhibit a melting curve crystallization exotherm at about 10°C or greater as determined by differential scanning calorimeter ~~DSC~~ curve;

(II) in combination with or without one or more of selected homopolymers of polystyrene, poly(alpha-methylstyrene), poly(o-methylstyrene), poly(m-methylstyrene), poly(p-methylstyrene), or poly(dimethylphenylene oxide); and

(III) a selected amount of one or more compatible plasticizers of sufficient amounts to achieve a stable gel having rigidities of from less than about 2 gram Bloom to about 1,800 gram Bloom.

Claim 2 (currently amended): ~~An improved non-tacky crystal gel composition according to claim 1, wherein said crystalline components having a selected crystallinity capable of exhibiting in differential scanning calorimeter (DSC) a melting at about 10°C or higher~~ (v) copolymer is poly(styrene-ethylene-butylene)<sub>n</sub>, and poly(styrene-ethylene-propylene-styrene); and said (vi) copolymer is poly(styrene-

butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-propylene)<sub>n</sub>, poly(ethylene-propylene), and poly(styrene-ethylene-propylene-styrene)

Claims 3-8 (non-elected and withdrawn)

Claim 9 (currently amended): A ~~non-tacky crystal~~ gel composition of claim 1 having a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; wherein a representative source of said (i) poly(ethylene-styrene) interpolymer(s) being Dow Interpolymers™, and a representative source of said (v) copolymer being Kraton® and Septon®.

Claim 10 (currently amended): A gel composite comprising a gel composition, G<sub>n</sub>, ~~which comprises of~~

(i) 100 parts by weight of one or more poly(styrene-ethylene-ethylene-propylene-styrene) block copolymers having a viscosity value at 5 weight percent solution in toluene at 30°C of about 25, 30, 35, 37, 40, 50, 60, 70, 80, 90, 100, 150, 160, 180, 200, 210, 260, 380, 400, 580, 800 cps and higher; ~~wherein at least one of said block copolymer is a high viscosity copolymer having a viscosity value at said viscosity value of 90 cps at 5 weight percent solution in toluene at 30°C of about 90 cps and higher which corresponds to a viscosity at 10 weight percent of about 5800 cps and higher which corresponds to a viscosity at 20 weight percent solids solution in toluene at 25°C of about 80,000 cps and higher,~~

(ii) about 250 to about 1,600 parts by weight of one or more compatible plasticizers ~~a low viscosity plasticizing oil;~~ said gel compositions characterized by a gel gram Bloom of about 2 to about 1,800 gram bloom; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-butylene), poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), polypropylene, or polyethylene; wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein n is greater than one; and

(iv) with or without a minor amount of at least one or more glassy component associating resins having softening points above about 120°C;

with ~~wherein said gel composition is formed into a composite with~~ one or more of a selected substrate material, M M<sub>n</sub>, said gel composite formed from ~~of~~ the combination G<sub>n</sub>M<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>

$M_n$ ,  $G_n G_n M_n G_n M_n$ ,  $G_n M_n G_n M_n M_n$ ,  $M_n G_n M_n G_n M_n G_n$ ,  $G_n G_n M_n M_n G_n$ ,  $G_n G_n M_n G_n M_n G_n$ , a sequential addition or a permutation of one or more of said  $G_n$  with  $M_n$ ; wherein when  $n$  is a subscript of  $M$ ,  $n$  is the same or different selected from the group consisting of foam, plastic, fabric, metal, concrete, wood, glass, ceramics, synthetic resin, synthetic fibers or refractory materials; and wherein when  $n$  is a subscript of  $G$ ,  $n$  denotes the same or a different gel rigidity;

wherein a representative source of said (i) poly(styrene-ethylene-ethylene-propylene-styrene) block polymers being Septon®.

Claim 11 (currently amended): A ~~non-tacky~~ gel composition comprising:

(i) 100 parts by weight of one or more hydrogenated styrene block copolymers having 2-methyl-1,3-butadiene and 1,3-butadiene blocks, ~~wherein said block copolymer is a high viscosity copolymer having a viscosity value at 5 weight percent solution in toluene at 30°C of about 90 cps and higher which corresponds to a viscosity at 10 weight percent of about 5800 cps and higher which corresponds to a viscosity at 20 weight percent solids solution in toluene at 25°C of at about 80,000 cps and higher;~~ and from

(ii) about 250 to about 1,600 parts by weight of one or more compatible plasticizers ~~a low viscosity plasticizing oil~~; said gelatinous elastomer compositions characterized by a gel gram Bloom rigidity of about 2 to about 2000 gram bloom; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-butylene), poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene, wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein  $n$  is greater than one; and with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C;

~~wherein a source of said (i) block polymer being Septon®.~~

Claim 12 (currently amended): A ~~non-tacky~~ gel composition comprising:

(i) 100 parts by weight of one or more block copolymer of poly(styrene-ethylene/ethylene-propylene-styrene) of negligible polyethylene crystallinity or low polyethylene crystallinity, wherein said block copolymer ~~is a high viscosity copolymer~~ having a viscosity value at 5 weight percent solution in toluene at 30°C of about 25, 30, 35, 37, 40, 50, 60, 70, 80, 90, 100, 150, 160, 180, 200, 210, 260, 380, 400, 580, 800 cps and higher which; said viscosity value of 90 cps at 5 weight percent solution corresponds to

a viscosity at 10 weight percent of about 5800 cps and ~~higher~~ which corresponds to a viscosity at 20 weight percent solids solution in toluene at 25°C of at about 80,000 cps ~~and higher~~, and from

(ii) about 250 to about 1,600 parts by weight of one or more selected compatible plasticizers a plasticizing oil; said gelatinous elastomer compositions characterized by a gel gram Bloom of about 2 to about 2000 gram bloom; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-butylene), poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene, wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein n is greater than one; and with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C;

wherein a representative source of said (i) block polymer being Septon®.

Claim 13 (currently amended): ~~non-tacky~~ gel composition comprising:

(i) 100 parts by weight of one or a mixture of two or more of a hydrogenated styrene isoprene/butadiene block copolymer(s); ~~having selected crystallinity and from~~

(ii) about 300 to about 1,600 parts by weight of one or more compatible plasticizers a plasticizing oil; said gelatinous elastomer compositions characterized by a gel rigidity of from about 20 to about 800 gram Bloom; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene-styrene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-butylene), poly(styrene-ethylene propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene, wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein n is greater than one; and with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C.

Claim 14 (currently amended): A ~~non-tacky~~ gel composition comprising:

(i) 100 parts by weight of one or a mixture of two or more of a hydrogenated styrene isoprene/butadiene block copolymer(s) and

(ii) from about 300 to about 1,600 parts by weight of one or more compatible plasticizers and plasticizing oil; wherein said gelatinous elastomer compositions characterized by a gel rigidity of from about 20 to about 800 gram Bloom; in combination with or without

(iii) a selected amount of one or more polymer or copolymer of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene-styrene), poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-butylene), poly(styrene-ethylene propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene, wherein said selected copolymer is a linear, radial, branched, star-shaped, or multiarm copolymer, and n is an integer greater than one; and with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C;

wherein a representative source of said (i) block polymer being Septon®.

Claim 15 (currently amended): A ~~non-tacky~~ gel composition comprising:

(i) 100 parts by weight of one or a mixture of two or more of a hydrogenated styrene block copolymer(s) of ~~selected crystallinity with~~ 2-methyl-1,3-butadiene and 1,3-butadiene and

(ii) from about 300 to about 1,600 parts by weight of one or more compatible plasticizers of which at least one said compatible plasticizer being of major amount of a low viscosity plasticizing oil in combination with a minor amount of one or more high viscosity plasticizing oils and plasticizing oil; wherein said gelatinous elastomer compositions characterized by a gel rigidity of from about 20 to about 800 gram Bloom; in combination with or without

(iii) a selected amount of one or more selected polymer or copolymer selected from the group consisting of poly(styrene-butadiene-styrene), poly(styrene-butadiene), poly(styrene-isoprene-styrene), poly(styrene-isoprene), poly(styrene-ethylene-propylene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-butylene), poly(styrene-ethylene propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene, wherein said selected copolymer is a linear, radial, branched, star-shaped, or multiarm copolymer; and n is an integer greater than one, and in combination with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C.

Claim 16 (currently amended): A gel composition comprising:

(i) 100 parts by weight of one or ~~a mixture of two or more of~~ poly(styrene-ethylene-ethylene-

propylene-styrene) block copolymer(s) of and

(ii) from about 300 to about 1,600 parts by weight of one or more compatible plasticizers of which at least one said compatible plasticizer being of major amount of a low viscosity plasticizing oil in combination with a minor amount of one or more high viscosity plasticizing oils or of which at least one said compatible plasticizer being of minor amount of a low viscosity plasticizing oil in combination with a major amount of one or more high viscosity plasticizing oils ~~an plasticizing oil~~, and in combination with or without

(ii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene), poly(styrene-isoprene-styrene), poly(styrene-isoprene), poly(styrene-ethylene-propylene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-butylene), poly(styrene-ethylene propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene, wherein said selected copolymer is a linear, branched, radial, star-shaped, or multiarm copolymer; and n is an integer greater than one; and with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; wherein a representative source of said (i) poly(styrene-ethylene-ethylene-propylene-styrene) block polymers being Septon®.

Claim 17 (Currently amended): A ~~non-tacky~~ gel composition of claim 10 ~~13~~ wherein said hydrogenated styrene block copolymer is one or more of a block copolymer of poly(styrene-ethylene-ethylene-propylene-styrene).

Claim 18 (currently amended): A gel composition ~~composite article~~ of claim 11, wherein at least one said (i) block copolymer is of the formula poly(styrene-ethylene-ethylene-propylene-styrene) having a viscosity value at 5 weight percent solution in toluene at 30°C of from about 90 to about 260 cps; and wherein a representative source of said (i) block polymer being Septon® ~~a source of said hydrogenated poly(styrene-isoprene-butadiene-styrene) block polymer being Septon® 4033, Septon® 4045, and Septon® 4055 and Septon® 4077 and a representative source of said resins being Aldrich Nos.: 32,771-9 (2,500M<sub>w</sub>), 32,772-7 (4,000 Mw), 37,951-4 (13,000 Mw), 32,774-3 (20,000 Mw), 32,775-1 (35,000 Mw), 33,034-5 (50,000 Mw), 32,777-8 (90,000 Mw), poly(alpha-methylstyrene) #41,794-7 (1,300 Mw), 19,184-1 (4,000 Mw); poly(4-methylstyrene) #18,227-3 (72,000 Mw); Hercules Chemical: Endex-155, 160, Kristalex 120, 140; (Regalrez 1126, 1128, 1139, 3102, 5095, and 6108), hydrogenated mixed aromatic resins (Regalite R125), Picco 5130, 5140, 9140; GE: Blendex (polyphenylene-ether) HPP820, HPP822, HPP823; Cumar LX509, Cumar 130, Lx-1035).~~

Claim 19 (currently amended): A composite formed from the gel compositions of claim 16 11, comprising:-

(I) 100 parts by weight of-

—— (i) ~~one or more poly(ethylene styrene) interpolymers) having one or more glassy components and at least one substantially crystalline components, wherein said (i) copolymers being in combination with a selected amount of one or more selected second copolymers comprising:~~

—— (ii) ~~one or more substantially random copolymers having one or more glassy components and one or more crystalline components of moderate crystallinity;~~

—— (iii) ~~one or more substantially random copolymers having one or more glassy components and one or more crystalline components of low crystallinity;~~

—— (iv) ~~one or more poly(ethylene styrene), interpolymers, produced by metallocene catalysts, having one or more glassy components and one or more amorphous polyethylene components;~~

—— (v) ~~one or more of a diblock, triblock, multi arm block, branched block, radial block, or multiblock copolymers, wherein said (v) copolymers having one or more glassy components and one or more elastomeric components of selected crystallinity; and~~

—— (vi) ~~one or more of a diblock, triblock, multi arm block, branched block, radial block, or multiblock copolymers, wherein said (vi) copolymers having one or more glassy components and one or more amorphous elastomeric components;~~

—— (vii) ~~a mixture of two or more (ii) (vi) copolymers;~~

~~wherein said (i), (ii), and (iii) and (v) copolymers are characterized by sufficient crystallinity as to exhibit a melting endotherm of at least about 10°C as determined by DSC curve, and wherein said (v) copolymers are capable of exhibiting negligible, low, or moderate crystallinity;~~

—— (II) ~~in combination with or without one or more of selected homopolymers; and~~

—— (III) ~~a selected amount of one or more compatible plasticizers of sufficient amounts to achieve a stable gel having rigidities of from less than about 2 gram Bloom to about 1,800 gram;~~

wherein said (i) block copolymer is of the formula poly(styrene-ethylene-ethylene-propylene-styrene) having a viscosity value at 5 weight percent solution in toluene at 30°C of about 25, 30, 35, 37, 40, 50, 60, 70, 80, 90, 100, 150, 160, 180, 200, 210, 260, 380, 400, 580, 800 cps and higher, said viscosity value of 90 cps at 5 weight percent solution corresponds to a viscosity at 10 weight percent of about 5800 cps and which corresponds to a viscosity at 20 weight percent solids solution in toluene at 25°C of at about 80,000 cps;

wherein a representative source of said (I) block polymer being Septon®  
~~gel composition denoted by G, which is formed into a composite with one or more of a selected substrate material, M, said composite formed from the combination~~  
 ~~$G_n M_n$ ,  $G_n M_n G_n$ ,  $M_n G_n M_n$ ,  $M_n G_n G_n$ ,  $M_n M_n M_n G_n$ ,  $M_n M_n M_n G_n M_n$ ,  $M_n G_n G_n M_n$ ,  $G_n M_n G_n G_n$ ,  $G_n M_n M_n G_n$ ,  $G_n G_n M_n M_n$ ,  $G_n G_n M_n G_n M_n$~~

~~$G_n M_n G_n M_n M_n M_n G_n M_n G_n M_n G_n G_n M_n M_n G_n G_n M_n G_n M_n G_n$ , a sequential addition or a permutation of one or more of said  $G_n$  with  $M_n$ ; wherein when  $n$  is a subscript of  $M$ ,  $n$  is the same or different selected from the group consisting of foam, plastic, fabric, metal, concrete, wood, glass, ceramics, synthetic resin, synthetic fibers or refractory materials; and wherein when  $n$  is a subscript of  $G$ ,  $n$  denotes the same or a different gel rigidity.~~

Claim 20 (currently amended): A ~~non-tacky~~ gel composition comprising:

- (i) 100 parts by weight of one or a mixture of two or more poly(styrene-ethylene-ethylene-propylene-styrene) block copolymer(s); from
- (ii) about 300 to about 1,600 parts by weight of a plasticizing oil; said gel composition characterized by a gel rigidity of from about 20 to about 800 gram Bloom; and in combination with
- (iii) a selected amount of one or more polymers or block copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, and poly(styrene-ethylene-butylene-styrene), poly(styrene-isoprene-styrene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), polypropylene, and polyethylene; wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein  $n$  is greater than one.

Claim 21 (currently amended): A ~~non-tacky~~ gel composition comprising:

- (i) 100 parts by weight of one or a mixture of two or more poly(styrene-ethylene-ethylene-propylene-styrene) block copolymer(s); from
- (ii) about 300 to about 1,600 parts by weight of a plasticizing oil; said gel composition characterized by a gel rigidity of from about 20 to about 800 gram Bloom; and in combination with or without
- (iii) a selected amount of one or more polymers or block copolymers of poly(styrene-butadiene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-ethylene-propylene-styrene), and poly(styrene-ethylene-butylene-styrene), poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene), poly(styrene-ethylene-butylene), poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene-ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, or polyethylene; polyalpha-methylstyrene/vinyl toluene copolymer, polyphenylene ether, poly(alpha-methylstyrene), poly(o-methylstyrene), poly(m-methylstryene), poly(p-methylstyrene), poly(4-methylstyrene), and poly(dimethylphenylene oxide); wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein  $n$  is greater than one.



Claim 22 (currently amended): A gel composite according to claim 15, wherein said hydrogenated styrene block polymer is one or more of a block copolymer of poly(styrene-ethylene-ethylene-propylene-styrene), and a representative source of said poly(styrene-ethylene-ethylene-propylene-styrene) being Septon® 4033, Septon® 4045, and Septon® 4055, and Septon® 4077 and a representative source of said resins being Hercules Chemical: Endex 155, 160, Kristalex 120, 140; (Regalrez 1126, 1128, 1139, 3102, 5095, and 6108), (Regalite R125), Picco 5130, 5140, 9140; and GE: Blendex HPP820, HPP822, HPP823 Endex® 155, 160, Kristalex® 120, 140, Regalrez® 1126, 1128, 1139, 3102, 5095, 6108, Regalite® R125, Picco® 5130, 5140, 9140, and Blendex® HPP820, HPP822, HPP823.

Claim 23 (currently amended): A ~~non-tacky~~ gel composition comprising:

- (i) 100 parts by weight of one or more block copolymer of poly(styrene-ethylene-ethylene propylene-styrene) exhibiting selected crystallinity, and from
- (ii) about 300 to about 1,600 parts by weight of a low viscosity plasticizing oil; with or without
- (iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; and said resins being Hercules Chemical: Endex 155, 160, Kristalex 120, 140; (Regalrez 1126, 1128, 1139, 3102, 5095, and 6108), hydrogenated mixed aromatic resins (Regalite R125), Picco 5130, 5140, 9140; and GE: Blendex HPP820, HPP822, HPP823 of polymerized mixed olefin, polyterpene, glycerol ester of rosin, pentaerythritol ester of rosin, saturated alicyclic hydrocarbon, coumarone indene, hydrocarbon, mixed olefin, alkylated aromatic hydrocarbon, polyalphamethylstyrene/vinyl toluene copolymer, polystyrene, polyphenylene ether, poly(alpha-methylstyrene), poly(o-methylstyrene), poly(m-methylstyrene), poly(p-methylstyrene), poly(4-methylstyrene), and poly(dimethylphenylene oxide).

Claim 24 (currently amended): A ~~non-tacky~~ gel composition, comprising: (i) 100 parts by weight of one or more of a hydrogenated styrene isoprene/butadiene copolymer exhibiting selected crystallinity, wherein a representative source of said copolymers being Septon® 4033, Septon® 4045, and Septon® 4055 and from

- (ii) about 300 to about 1,600 parts by weight of a low viscosity plasticizing oil;
- (iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; and a representative source of said resins being Hercules Chemical: Endex 155, 160, Kristalex 120, 140; (Regalrez 1126, 1128, 1139, 3102, 5095, and 6108), hydrogenated mixed aromatic resins (Regalite R125), Picco 5130, 5140, 9140 Endex® 155, 160, Kristalex® 120, 140, Regalrez® 1126, 1128, 1139, 3102, 5095, 6108, Regalite® R125, and Picco® 5130, 5140, 9140.

Claim 25 (currently amended): A ~~non-tacky~~ gel composition, comprising:

- (i) 100 parts by weight of a hydrogenated styrene isoprene/butadiene copolymer; wherein a representative source of said block copolymer being Septon® 4033, Septon® 4045, ~~and Septon® 4055, and Septon® 4077~~ and from
- (ii) about 300 to about 1,600 parts by weight of a low viscosity plasticizing oil;
- (iv) in combination with or without a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; and a representative source of said resins being ~~Hercules Chemical~~: Endex® 155, 160, and Kristalex® 120, 140.

Claim 26 (currently amended): A ~~non-tacky~~ gel composition, comprising:

- (i) 100 parts by weight of one or more block copolymers of poly(styrene-ethylene-ethylene propylene-styrene); ~~exhibiting selected crystallinity, wherein a representative source of said block copolymers being Septon® 4033, Septon® 4045, and Septon® 4055, and from~~
- (ii) about 300 to about 1,600 parts by weight of a low viscosity plasticizing oil;
- (iv) in combination with or without a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; ~~and said resins being Hercules Chemical: Regalrez 1126, 1128, 1139, 3102, 5095, and 6108, hydrogenated mixed aromatic resins (Regalite R125), Picco 5130, 5140, 9140.~~

Claim 27 (currently amended): A ~~non-tacky~~ gel composition, comprising: (i) 100 parts by weight of one or more of a hydrogenated styrene isoprene/butadiene copolymers; wherein a representative source of said block copolymers being Septon® 4033, Septon® 4045, and Septon® 4055 and from

- (ii) about 300 to about 1,600 parts by weight of a low viscosity plasticizing oil; and in combination with or without
- (iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-isoprene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-propylene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, polyethylene, polypropylene;
- (iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; and a representative source of said resins being ~~GE~~: Blendex® polyphenylene ether HPP820, HPP822, and HPP823.

Claim 28 (currently amended): A ~~non-tacky~~ gel composition, comprising:

- (i) 100 parts by weight of s hydrogenated styrene block copolymers having 2-methyl-1,3 butadiene and 1,3-butadiene blocks; ~~and wherein a source of said block copolymers being Septon® 4033,~~

~~Septon® 4045, and Septon® 4055, and from~~

(ii) about 300 to about 1,600 parts by weight of a plasticizing oil; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-isoprene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-propylene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, polyethylene, polypropylene; wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein n is greater than one; in combination with or without

(iv) a minor amount of at least one or more glassy component associating resins having softening points above about 120°C;

wherein and a representative source of said resins being Aldrich Nos.: 32,771-9 (2,500M<sub>w</sub>), 32,772-7 (4,000 M<sub>w</sub>), 37,951-4 (13,000 M<sub>w</sub>), 32-774-3 (20,000 M<sub>w</sub>), 32,775-1 (35,000 M<sub>w</sub>), 33,034-5 (50,000 M<sub>w</sub>), 32,777-8 (90,000 M<sub>w</sub>), poly(alpha-methylstyrene) #41,794-7 (1,300 M<sub>w</sub>), 19,184-1 (4,000 M<sub>w</sub>); poly(4-methylstyrene) #18,227-3 (72,000 M<sub>w</sub>); Aldrich Nos.: 32,771-9 of about 2,500M<sub>w</sub>, 32,772-7 of about 4,000 M<sub>w</sub>, 37,951-4 of about 13,000 M<sub>w</sub>, 32-774-3 of about 20,000 M<sub>w</sub>, 32,775-1 of about 35,000 M<sub>w</sub>, 33,034-5 of 50,000 M<sub>w</sub>, 32,777-8 of about 90,000 M<sub>w</sub>, poly(alpha-methylstyrene) 41,794-7 of about 1,300 M<sub>w</sub>, 19,184-1 of 4,000 M<sub>w</sub>; poly(4-methylstyrene) 18,227-3 of about 72,000 M<sub>w</sub>; and

wherein a representative source of said block copolymers being Septon® 4033, Septon® 4045, Septon® 4055, and Septon® 4077.

Claim 29 (currently amended): ~~non-tacky~~ gel composition, comprising:

(i) 100 parts by weight of one or more block copolymer of poly(styrene-ethylene-ethylene propylene-styrene), wherein a representative source of said block copolymer being Septon® 4033, Septon® 4045, ~~and Septon® 4055, and Septon® 4077~~ and from

(ii) about 300 to about 1,600 parts by weight of a plasticizing oil; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-isoprene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-propylene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, polyethylene, polypropylene; wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein n is greater than one;

(iv) a minor amount of at least one or more glassy component associating resins having

softening points above about 120°C; and a representative source of said resins being Aldrich Nos.: ~~32,771-9 (2,500M<sub>w</sub>), 32,772-7 (4,000 Mw), 37,951-4 (13,000 Mw), 32-774-3 (20,000 Mw), 32,775-1 (35,000 Mw), 33,034-5 (50,000 Mw), 32,777-8 (90,000 Mw), poly(alpha-methylstyrene) #41,794-7 (1,300 Mw), 19,184-1 (4,000 Mw); poly(4-methylstyrene) #18,227-3 (72,000 Mw); Hercules Chemical: Endex 155, 160, Kristalex 120, 140 Aldrich Nos.: 32,771-9 of about 2,500M<sub>w</sub>, 32,772-7 of about 4,000 M<sub>w</sub>, 37,951-4 of about 13,000 M<sub>w</sub>, 32-774-3 of about 20,000 M<sub>w</sub>, 32,775-1 of about 35,000 M<sub>w</sub>, 33,034-5 of 50,000 M<sub>w</sub>, 32,777-8 of about 90,000 M<sub>w</sub>, poly(alpha-methylstyrene) 41,794-7 of about 1,300 M<sub>w</sub>, 19,184-1 of 4,000 M<sub>w</sub>; poly(4-methylstyrene) 18,227-3 of about 72,000 M<sub>w</sub>, Endex 155, 160, and Kristalex 120, 140.~~

Claim 30 (currently amended): A gel composite comprising a gel composition, G<sub>n</sub>, of formed from-

(i) 100 parts by weight a block copolymer comprising poly(styrene-ethylene-ethylene-propylene styrene), ~~wherein a source of said block copolymer being Septon® 4033, Septon® 4045, and Septon® 4055,~~ and from

(ii) about 300 to about 1,600 parts by weight of a selected plasticizing oil; and in combination with or without

(iii) a selected amount of one or more polymers or copolymers of poly(styrene-butadiene-styrene), poly(styrene-isoprene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-propylene-styrene), poly(styrene-butadiene)<sub>n</sub>, poly(styrene-isoprene)<sub>n</sub>, poly(styrene-ethylene-propylene)<sub>n</sub>, poly(styrene ethylene-butylene)<sub>n</sub>, polystyrene, polybutylene, polyethylene, polypropylene; wherein said selected copolymer is a linear, radial, star-shaped, branched or multiarm copolymer, wherein n is greater than one; ~~with or without~~

(iv) ~~a minor amount of at least one or more glassy component associating resins having softening points above about 120°C; and said resins being Hercules Chemical: Regalrez 1126, 1128, 1139, 3102, 5095, and 6108;~~

~~with wherein said gel composition is formed into a composite with~~ one or more of a selected substrate material, ~~M~~ M<sub>n</sub>, said composite ~~formed from of the~~ combination G<sub>n</sub>M<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, M<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>G<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>M<sub>n</sub>, G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>, G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>M<sub>n</sub>, M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, G<sub>n</sub>G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>M<sub>n</sub>G<sub>n</sub>, a sequential addition or a permutation of one or more of said G<sub>n</sub> with M<sub>n</sub>; wherein when n is a subscript of M, n is the same or different selected from the group consisting of foam, plastic, fabric, metal, concrete, wood, glass, ceramics, synthetic resin, synthetic fibers or refractory materials; and wherein when n is a subscript of G, n denotes the same or a different gel rigidity.

Claim 31 (currently amended): A prosthetic device comprising a lower extremity socket insert for below knee or above knee with or without a cuff suspension formed from a gel composition of claim ~~16~~ 25.

Claim 32 (currently amended): A prosthetic device comprising a lower extremity socket insert for below knee or above knee with or without a cuff suspension formed from a gel composite claim ~~40~~ 30, wherein M is a fabric.

Claim 33 (currently amended): A gel composite of claim 20, wherein said hydrogenated styrene block copolymer(s) with 2-methyl-1,3-butadiene and 1,3-butadiene is poly(styrene-ethylene-ethylene propylene-styrene) exhibiting selected crystallinity, and a representative source of said poly(styrene-ethylene-ethylene-propylene-styrene) being Septon®; 4033, Septon® 4045, and Septon® 4055 and a representative source of said resins being Aldrich Nos.: 32,771-9 (2,500M<sub>w</sub>), 32,772-7 (4,000 Mw), 37,951-4 (13,000 Mw), 32-774-3 (20,000 Mw), 32,775-1 (35,000 Mw), 33,034-5 (50,000 Mw), 32,777-8 (90,000 Mw), poly(alpha-methylstyrene) #41,794-7 (1,300 Mw), 19,184-1 (4,000 Mw); poly(4-methylstyrene) #18,227-3 (72,000 Mw); Hercules Chemical: Endex 155, 160, Kristalex 120, 140; (Regalrez 1126, 1128, 1139, 3102, 5095, and 6108), hydrogenated mixed aromatic resins (Regalite R125), Picco 5130, 5140, 9140; GE: Blendex (polyphenylene ether) HPP820, HPP822, HPP823; Cumar LX509, Cumar 130, Lx-1035) Aldrich Nos.: 32,771-9 of about 2,500Mw, 32,772-7 of about 4,000 Mw, 37,951-4 of about 13,000 Mw, 32-774-3 of about 20,000 Mw, 32,775-1 of about 35,000 Mw, 33,034-5 of 50,000 Mw, 32,777-8 of about 90,000 Mw, poly(alpha-methylstyrene) 41,794-7 of about 1,300 Mw, 19,184-1 of 4,000 Mw; poly(4-methylstyrene) 18,227-3 of about 72,000 Mw, Endex® 155, 160, Kristalex® 120, 140; Regalrez® 1126, 1128, 1139, 3102, 5095, 6108, Regalite® R125, Picco® 5130, 5140, 9140; Blendex® HPP820, HPP822, HPP823, Cumar® LX509, Cumar® 130, and Lx-1035).